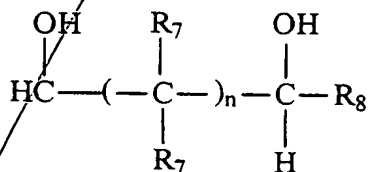
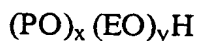


WHAT IS CLAIMED IS:

1. A liquid dishwashing detergent composition suitable for use in hand dishwashing, said composition characterized by:
 - a) a low molecular weight organic diamine having a pK1 and a pK2, wherein the pK1 and the pK2 of said diamine are both in the range of from 8.0 to 11.5;
 - b) an anionic surfactant;
 - c) an amphoteric surfactant; and
 - d) a solvent selected from the group consisting of a diol, a polymeric glycol and mixtures thereof wherein said diol is selected from the group consisting of:



wherein $n = 0-3$, $\text{R}_7 = \text{H}$, methyl or ethyl; and $\text{R}_8 = \text{H}$, methyl, ethyl, propyl, isopropyl, butyl and isobutyl; and wherein the polymeric glycol is selected from the group consisting of:



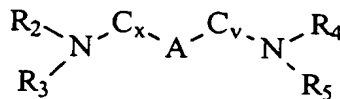
wherein PO represents a propylene oxide group and EO represents an ethylene oxide group and $x+y$ is from 17 to 68, and $x/(x+y)$ is from 0.25 to 1.0; and

wherein the pH (as measured as 10% aqueous solution) is from 5.0 to 12.5 and wherein the mole ratio of said anionic surfactant to said amphoteric surfactant to said diamine is from 100:40:1 to 9:0.5:1.

2. A liquid dishwashing detergent composition according to claim 1 further characterized by a buffering agent and wherein the composition has a pH of from 10 to 11.5.
3. A liquid dishwashing detergent composition according to any of claims 1-2 wherein the diol is selected from the group consisting of propylene glycol, 1,2 hexanediol, 2-ethyl-1,3-hexanediol and 2,2,4-trimethyl-1,3-pentanediol and mixtures thereof.
4. A liquid dishwashing detergent composition according to any of claims 1-3 wherein the polymeric glycol is polypropylene glycol having a molecular weight of from 1000 to 5000.

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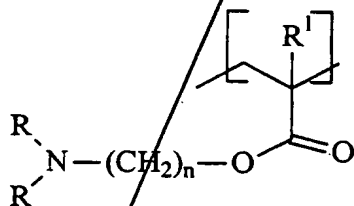
5. A liquid dishwashing detergent composition according to any of claims 1-4 wherein said diamine is selected from the group consisting of:



wherein R₂₋₅ are independently selected from H, methyl, ethyl, and ethylene oxides; C_x and C_y are independently selected from methylene groups or branched alkyl groups where x+y is from 3 to 6; and A is optionally present and is selected from electron donating or withdrawing moieties chosen to adjust the diamine pKa's to the desired range; wherein if A is present, then both x and y must be 2 or greater.

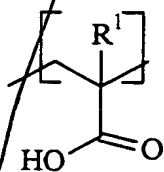
6. A liquid dishwashing detergent composition according to any of claims 1-5 wherein the polymeric glycol is polypropylene glycol having a molecular weight of from 2000 to 4000 and is present in a range of from 0.25% to 5.0%, by weight of the composition.
7. A liquid dishwashing detergent composition according to any of claims 1-6 further characterized by a polymeric suds stabilizer selected from the group consisting of:

- i) homopolymers of (N,N-dialkylamino)alkyl acrylate esters having the formula:



wherein each R is independently hydrogen, C₁-C₈ alkyl, and mixtures thereof, R' is hydrogen, C₁-C₆ alkyl, and mixtures thereof, n is from 2 to 6; and

- ii) copolymers of (i) and

[illegible]

wherein R¹ is hydrogen, C1-C6 alkyl, and mixtures thereof; provided that the ratio of (ii) to (i) is from 2 to 1 to 1 to 2; and wherein said polymeric suds stabilizer has a molecular weight of from 1,000 to 2,000,000 daltons.

8. The liquid dishwashing detergent composition according to any of claims 1-7 further characterized by an α -amylases having a specific activity at least 25% higher than the specific activity of Termamyl® at a temperature range of 25°C to 55°C and at a pH value in the range of 8 to 10, measured by the Phadebas® α -amylase activity assay.

9. A method for cleaning a substrate in a manual dishwashing operation characterized by the steps of:

- (a) contacting the substrate with a liquid dishwashing detergent composition prepared according to claim 1; and
- (b) allowing the detergent composition to remain in contact with the substrate for a sufficient time to provide effective cleaning benefits to the substrate.

10. A method according to any of claims 1-9, wherein the liquid dishwashing detergent composition is applied to the substrate with no more than 90% dilution with water.

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Sub
a1

B

Sub
a2

add B